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Passing over the statements in De Candolle's "Introduction à l'étude de la Botanique" (Tome 1, p. 415) 1835; in Treviranus' *Physiologie der Gewächse* (1838, vol. ii, s. 759), in Meyen's *Neues System der Planzen Physiol.* vol. iii, s. 550, we find in *Botanische Zeitung*, June 29, 1860, an article by Nitschke, detailing an extensive series of experiments upon *Drosera*. These results, together with the very curious observations published in *Comptes Rendus* last year, we will present at an early day, feeling quite confident that many of our readers will carefully repeat some of these experiments during the coming season. — G. L. G.

ZOOLOGY.

A NEW ÆGERIAN MAPLE BORER. — Last June my attention was drawn to numerous castings, similar to those of the peach tree borer (*Trochilium exitiosum* Say) projecting from the trunk of the soft maple trees surrounding our university yard. Having approached one of these trees I found several moths already hatched out, the most of the maple trees having been destroyed by this pernicious insect, which, boring in the bark and sap-wood, not only hinders the sap from circulating, but also enfeebles the trunk so that it is no longer able to support the weight of its foliage.

During this summer a dozen of these trees were broken down, and the few still standing are in such a condition that I believe they will not resist the winds of a second season. This condition of things induced me to pay close attention to this insect — studying its habits and collecting specimens. I failed to find it described in any of the entomological works of the university library and I have been informed that Dr. Le Baron, State Entomologist, was not aware of any Ægerians feeding on the maple tree.

My confidence in this second statement having been reënforced by a similar answer of several men of experience that I consulted on the matter, I came to the conclusion that this insect is a new destroyer and enemy of our best shade tree. I therefore give you a description* of this insect, adding what I could observe on its

**TROCHILIMUM ACERICOLUM*, n. sp. The female, the perfect insect of this Ægeria, measures across the wings from 13-16 to 15-16 of an inch; its wings are transparent. FORE WINGS; the tips yellowish, opaque, with black veins; front margin and fringe black; a steel-blue transverse band beyond their middle. HIND WINGS with a steel-

habits in the last two months and a half. It feeds on the inner bark and on the sap-wood. When fully fed it spins its cocoon near the surface of the outer bark. Early in the morning it makes its way out of the cocoon and the very thin layer of bark that covers it, leaving the cast skin half emerged from the orifice on the trunk, and appearing in a winged state. The females in laying their eggs, select the roughest places of *any part* of the trunk — and not of the base only, as the *T. exitiosum* — where they deposit them one in a place. The larvæ are found under the bark at any time and in all sizes. — P. GERMADIUS, *Champaign, Ill.*

A SPINOUS FIN IN A MINNOW. — A genus of fishes (*Protistius* Cope) has been recently discovered in the Ecuadorian Andes, which in its general structure appears to belong to the bull-minnows (*Cyprinodontidæ*). Its head and mouth, however, resemble those of a mullet (*Mugil*) and it has a rudimental spinous dorsal fin consisting of a single small spine, which is bound to the back by membrane so as to be capable of but little erection.

GEOLOGY.

RETURN OF PROFESSOR MARSH'S EXPEDITION. — Prof. O. C. Marsh and party returned to New Haven, November 7th, after an absence of five months in the Rocky Mountain region and on the Pacific Coast. The present expedition had the same object in view as those of previous years, viz: a study of the vertebrate fossils of the west, especially those of the Cretaceous and Tertiary formations. The first explorations this year were made in the Pliocene deposits near the Niobrara River. The party fitted out in June at Fort

blue spot in the middle of the fore margin; fringe black. TAIL (caudal tuft) deep orange. ABDOMEN, above steel-blue; beneath, except the second ring from the thorax, steel-blue and golden-yellow with a longitudinal orange line in the middle. THORAX shining brown-yellow. LEGS hairy, yellow, spotted with orange and steel-blue; femur of the front pair, orange. Prosternum, heavy orange; mesosternum and metasternum, heavy golden-yellow. HEAD mostly occupied by large black eyes, in the front part of each of which is a white silvery spot. PALPI orange. TONGUE distinct, spiral, yellow, 3-16 of an inch.

The male differs from the female in being somewhat smaller, having the fringe brown-golden; the abdomen, above of a lighter steel-blue, inclining to a bronze, and beneath of a more intense golden-yellow; hairs of the tail of a steel-blue color half-way from the base, and the remaining of paler orange. In a word, he is of a lighter color than the female.

The larva is whitish, hairy, head brown; length 9-10 inch and diameter 1-8 of an inch.